

## Motorola Solutions Technical Notification (MTN)

**TITLE:** RAM Disk Full on VMS and vCenter.

**TECHNOLOGY:** ASTRO 25

**SYMPTOMS:**

UEM message concerning VMS or VCS with Severity set to "info": The ramdisk "tmp" is full. As a result, the file <file\_name> could not be written.

Additional symptoms:

1. Unable to login to ESXi via web interface
2. hanging VMs and/or extremely slow performance,
3. syslog memory exhaustion errors:

2019-11-05T09:05:05Z Unknown: out of memory [3261439]

**MODELS / SYSTEM RELEASES / KITS / DATECODES AFFECTED:**

System Release: ASTRO 25 A7.18 A2019.2

**SEVERITY RECOMMENDATION:**

Medium / Operational - Schedule to implement

**ROOT CAUSE / DEFINITIVE TEST:**

Issue in HP-AMS service running on ESXi 6.0/6.5 VMS which causes /tmp to become full.

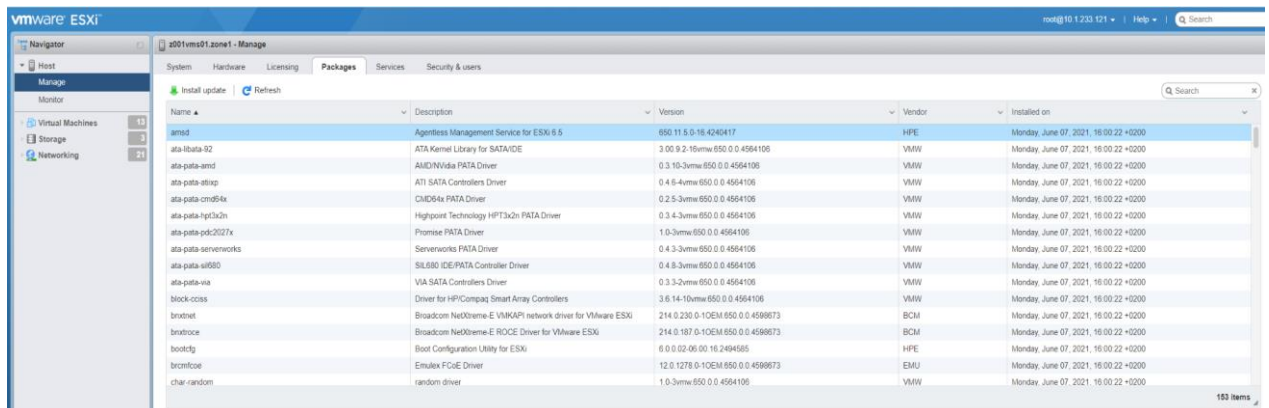
**DEFINITIVE TEST**

|   |  |  |
|---|--|--|
| 1 | Try to login to the VMS with the Web User Interface. |  |
|   | IF   | The Web User Interface is blocked by this issue and login is not possible. |
|   | THEN   | Go to step 6.  |
|   | Otherwise  | Go to the next step.   |

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- 2 Try to login to the VMS with the Web User Interface if it is not blocked by this issue.
- Log on to the VMware ESXi Embedded Host Client by performing the following actions:
- a) Launch the web browser.
  - b) In the address bar, enter the IP address of the VMS host.
  - c) If a certificate warning appears, continue to the page.
  - d) The form of the warning and steps to ignore it depend on the web browser.
  - e) In the User name field, enter: root
  - f) In the Password field, enter the password.
  - g) Click Log in.
- Result: The ESXi Embedded Host Client main page appears

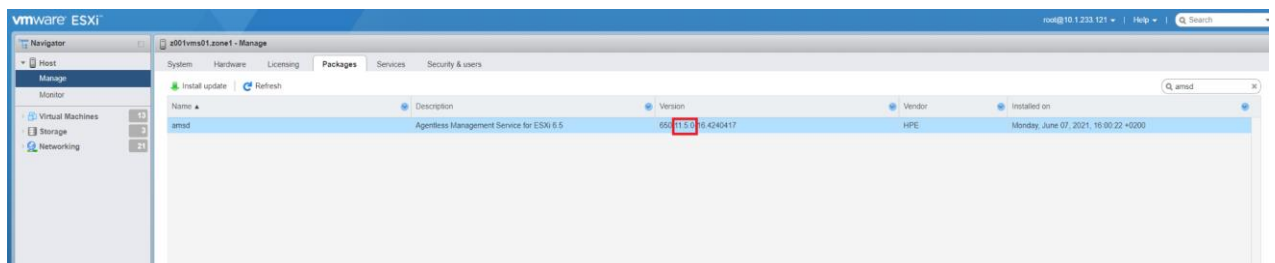
- 3 In the Navigation pane click Manage then select Packages.
- Example:



| Name                | Description  | Version                          | Vendor | Installed on                          |
|---------------------|--|----------------------------------|--------|---------------------------------------|
| amsd                | Agentless Management Service for ESXi 6.5                | 650.11.5.0-16.4240417            | HPE    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-lbata-92        | ATA Kernel Library for SATA/IDE                          | 3.00.9.2-10vmw.650.0.0.4564106   | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-pata-ahci       | AHCI/NVMe SATA Driver                                    | 0.3.10.3-vmw.650.0.0.4564106     | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-pata-ahci       | ATI SATA Controllers Driver                              | 0.4.6-4-vmw.650.0.0.4564106      | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-pata-cm04x      | CM04x SATA Driver  | 0.2.5-3-vmw.650.0.0.4564106      | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-pata-hpt3a2h    | Highpoint Technology HPT3a2h SATA Driver                 | 0.3.4-3-vmw.650.0.0.4564106      | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-pata-pdc2027x   | Promise SATA Driver                                      | 1.0-3-vmw.650.0.0.4564106        | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-pata-serveworks | Serveworks SATA Driver                                   | 0.4.3-3-vmw.650.0.0.4564106      | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-pata-sil580     | SIL580 IDE/SATA Controller Driver                        | 0.4.8-3-vmw.650.0.0.4564106      | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| ata-pata-via        | VIA SATA Controllers Driver                              | 0.3.3-2-vmw.650.0.0.4564106      | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| block-cs03x         | Driver for HPT/Compag Smart Array Controllers            | 3.6.14-10vmw.650.0.0.4564106     | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |
| bnxnet              | Broadcom NetXtreme-E VNIC network driver for VMware ESXi | 214.0.230.0-10EM.650.0.0.4569873 | BCM    | Monday, June 07, 2021, 16:00:22 +0200 |
| bnxtrce             | Broadcom NetXtreme-E ROCE Driver for VMware ESXi         | 214.0.187.0-10EM.650.0.0.4569873 | BCM    | Monday, June 07, 2021, 16:00:22 +0200 |
| bootcfg             | Boot Configuration Utility for ESXi                      | 6.0.0.02-06.00.16.2494565        | HPE    | Monday, June 07, 2021, 16:00:22 +0200 |
| brmfcoe             | Emulex FCoE Driver                                       | 12.0.1278.0-10EM.650.0.0.4569873 | EMU    | Monday, June 07, 2021, 16:00:22 +0200 |
| char-random         | random driver  | 1.0-3-vmw.650.0.0.4564106        | VMW    | Monday, June 07, 2021, 16:00:22 +0200 |

Result: All installed packages are displayed.

- 4 Type name amsd in the search box.



| Name | Description                               | Version               | Vendor | Installed on                          |
|------|---|-----------------------|--------|---------------------------------------|
| amsd | Agentless Management Service for ESXi 6.5 | 650.11.5.0-16.4240417 | HPE    | Monday, June 07, 2021, 16:00:22 +0200 |

Result: The amsd package is selected.

|   |   |   |
|---|---|---|
| 5 | Check the version number of the <b>amsd</b> package, which has been marked with a red square in the figure above.   |   |
|   | IF  | If version is equal 11.4.0  |
|   | THEN  | Your system is affected with this issue. Execute <b><u>RESOLUTIONS AND REPAIR PROCEDURES.</u></b> |
|   | Otherwise   | Your system is NOT affected with this issue. Logout from Web UI. MTN procedure is completed.      |
| 6 | <p>If the Web User Interface is blocked by this issue then follow the procedure.</p> <p>Establish the ssh connection to ESXi management interface IP address by using a <b>PuTTY</b> terminal emulator software. Log on as the root user.</p> <p>Result: A command prompt is displayed on PuTTY terminal emulator window.</p> |   |
| 7 | <p>In the prompt, execute the following commands:</p> <pre>esxcli software vib list   grep ams</pre> <p>example output:</p> <pre>amsd 650.<u>11.4.0</u>-18.4240417 HPE PartnerSupported 2019-10-17</pre> <p>Result: The Version of amsd package is displayed.</p>   |   |
| 8 | Check the version number of the amsd package, which has been marked with underline in the step above.   |   |
|   | IF  | If version is equal 11.4.0  |
|   | THEN  | Your system is affected with this issue. Execute <b><u>RESOLUTIONS AND REPAIR PROCEDURES.</u></b> |
|   | Otherwise   | Your system is NOT affected with this issue. Go to the next step.                                 |
| 9 | <p>In PuTTY terminal window, enter the following command:</p> <pre>exit</pre> <p>Result: Secure remote terminal session is terminated and PuTTY terminal window is closed. MTN procedure is completed.</p>  |   |

#### **WORKAROUNDS AND CORRECTIVE ACTIONS:**

|   |  |
|---|--|
| 1 | <p>Establish the ssh connection to ESXi management interface IP address by using a PuTTY terminal emulator software.</p> <p>Log on as the root user.</p> <p>Result: A command prompt is displayed on PuTTY terminal emulator window.</p> |
|---|--|

|   |  |
|---|--|
| 2 | <p>In the prompt, execute the following commands one by one:</p> <pre>rm /tmp/ams-bbUsg.txt</pre> <pre>vdf -h   grep -e "Ramdisk\ tmp"</pre> <p>example output:</p> <pre>Ramdisk Size Used Available Use% Mounted on tmp 256M 128M 128M 50% -</pre> <p>Result: The output of the last command must indicate the /tmp use is lower than 100 %</p> |
|---|--|

### **RESOLUTIONS AND REPAIR PROCEDURES:**

|   |   |
|---|---|
| 1 | <p>On NM Client, insert the corresponding "VMware Driver Media for ESXi 6.5 20200331-01" disc into the DVD-ROM drive.</p> <p>Result: The media is inserted and available to use (further on in this document, drive letter of DVD-ROM drive is referred as <i>&lt;drive&gt;</i>, which is defined as a character from a to z and colon).</p>  |
| 2 | <p>From the Windows Start menu, enter Command Prompt in the search box to bring up the Command Prompt option, then right-click Command Prompt and select Run as administrator.</p> <p>Result: The Administrator Command Prompt window appears.</p>  |
| 3 | <p>In Command Prompt window, enter the following command to copy driver package to an ESXi host:</p> <pre>pscp &lt;drive&gt;\esxi6.5uX-mgmt-bundle-3.4.5-8.zip root@&lt;esxi-host-ip-address&gt;:/tmp</pre> <p>where <i>&lt;esxi-host-ip-address&gt;</i> is an ip address of ESXi management network interface.</p> <p>If You are prompted to store or update key in cache (y/n), enter y to continue, and enter the password for root account.</p> <p>Result: The pscp command has copied the zip file to ESXi host.</p> |
| 4 | <p>In Command Prompt window, enter the following command to open remote terminal session to an ESXi host: <code>putty root@&lt;esxi-host-ip-address&gt;</code></p> <p>where <i>&lt;esxi-host-ip-address&gt;</i> is an ip address of ESXi management network interface.</p> <p>Result: PuTTY terminal window appears, prompting to enter a password</p>  |
| 5 | <p>Enter the password for the root account.</p> <p><b>Result:</b> Remote secure terminal session is established, and command prompt appears.</p>  |

|    |   |
|----|---|
| 6  | <p>In the prompt, execute the following commands one by one:</p> <pre>rm /tmp/ams-bbUsg.txt vdf -h   grep -e "Ramdisk\ tmp"</pre> <p>example output:</p> <pre>Ramdisk Size Used Available Use% Mounted on tmp 256M 128M 128M 50% -</pre> <p>Result: The output of the last command must indicate the /tmp use is lower than 100 %</p>   |
| 7  | <p>In PuTTY terminal window, enter the following command:</p> <pre>esxcli software vib install --dry-run -d /tmp/esxi6.5uX-mgmt-bundle-3.4.5-8.zip</pre> <p>Verify that there are no error messages in the output of this command.</p> <p>Result: This command prints only information (without real execution) about predicted results of execution of this command.</p>   |
| 8  | <p>In PuTTY terminal window, enter the following command (the same as previous command but without --dry-run option):</p> <pre>esxcli software vib install -d /tmp/esxi6.5uX-mgmt-bundle-3.4.5-8.zip</pre> <p>It can take up to 2 minutes for the command to complete. As a result the command prints:</p> <p>Installation Result</p> <p>Message: The update completed successfully, but the system needs to be rebooted for the changes to be effective. Reboot Required: true</p> <p>Expected message is the following: The update completed successfully, but the system needs to be rebooted for the changes to be effective.</p> <p>Result: Software was installed successfully.</p> |
| 9  | <p>In PuTTY terminal window, enter the following command:</p> <pre>exit</pre> <p>Result: Secure remote terminal session is terminated and PuTTY terminal window is closed.</p>  |
| 10 | <p>On NM Client, run VMware vSphere Web Client. (using Internet Explorer)</p> <ul style="list-style-type: none"> <li>· Log in to the ESXi host with root credentials.</li> <li>· Gracefully shutdown virtual machines (guests).</li> <li>· Reboot the ESXi host.</li> </ul> <p>Result: Repair procedure is completed.</p>   |

Upgrade to the appropriate version as listed in the "PARTS REQUIRED (HARDWARE/SOFTWARE):" section below, based on the model.

**To obtain software:**

- 1) Initiate a software request case through Motorola Solution, Inc. System Support Center (SSC) at 1-800-221-7144 (1-302-444-9800)
- 2) Await confirmation email from Motorola Solutions Software Factory with instructions
- 3) Complete the Motorola Solutions Software Factory Software Order Form:
  - a) Reference **MTN-0005B-20-NA** in the 'Reason for Software/Hardware Change' section of the software order form.
  - b) List the part number (**KC #** as listed under "PARTS REQUIRED (HARDWARE/SOFTWARE):" below) in the 'Part # or Version #' section of the software order form.
- 4) Email completed Software Order Form to MSSF for processing

**PARTS REQUIRED (HARDWARE/SOFTWARE):**

KC877C0AH000190201 VMware Driver Media for ESXi 6.5 20200331-01

**ADDITIONAL INFORMATION:**

N/A

**REFERENCE THE FOLLOWING DOCUMENTS/PROCESSES FOR INSTALLATION PROCEDURES:**

N/A

**WHEN TO APPLY RESOLUTION:**

After failure \_X\_

During maintenance \_X\_

**LABOR ALLOWANCE:**

This is an informational bulletin. No labor warranty is implied, intended or authorized for U.S. Domestic Partners/Customers. Other regions should follow their own standard procedures.

For assistance with this bulletin please contact your MSI Technical support center

[https://www.motorolasolutions.com/en\\_us/support.html](https://www.motorolasolutions.com/en_us/support.html)



Motorola Solutions Software Factory

Software Order Form

Phone Number: (800) 221-7144

## SECTION 1: General Information

NOTE: PRICE QUOTES GIVEN BY UOST ARE VALID FOR ONLY 90 DAYS

Date \_\_\_\_\_  
System ID \_\_\_\_\_  
System Name \_\_\_\_\_  
Customer \_\_\_\_\_  
Name \_\_\_\_\_

Case Number \_\_\_\_\_  
Site ID \_\_\_\_\_  
Site Name \_\_\_\_\_

Form \_\_\_\_\_  
Completed by \_\_\_\_\_  
Organization \_\_\_\_\_  
Phone \_\_\_\_\_  
Number \_\_\_\_\_  
Pager \_\_\_\_\_  
Number \_\_\_\_\_  
Fax Number \_\_\_\_\_

Field Contact \_\_\_\_\_  
Organization \_\_\_\_\_  
Phone Number \_\_\_\_\_  
Pager Number \_\_\_\_\_  
Fax Number \_\_\_\_\_

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## SECTION 2: Order Information

Product Type: \_\_\_\_\_

Serial Number \_\_\_\_\_

Reason for Software / Hardware Change:  
Downgrade? If so, list current and target releases.

\_\_\_\_\_  
\_\_\_\_\_

Software / Hardware Description:

\_\_\_\_\_

Part # or Version # \_\_\_\_\_

Quantity \_\_\_\_\_

Date Required \_\_\_\_\_

### SECTION 3: Shipping / Billing Information

Ship To:

---

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Email:

---

Attn:

---

Phone:

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Bill To:

---

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Attn:

---

Phone:

---

#### Customer Billing

P.O. #:

---

CUST #:

---

TAG #:

---

#### Internal Billing

PROJECT #:

---

FSB #:

---

DEPT #:

---

APC #:

---



## **Software Order Form**

*Motorola Solutions Software Factory*

Phone Number: (800) 221-7144

- ° This form has been sent to you because you have requested an order from the *Motorola Solutions Software Factory* Team.
- ° Please fill out the order form and email back to the *Motorola Solutions Software Factory* Team
- ° If desired, please provide your email address on the order form and we will provide a tracking number when your order ships for your convenience.
- ° Orders will normally be processed in 3-5 business days once all information has been received.
- ° If additional space is required for software information, please use the optional addendum on page 3 below in addition to the original order form. This form is for use with large orders with multiple part numbers.

### **NOTE:**

- 1) If this is SSA CUSTOMER please order via Motorola factory order.
- 2) Limited Liability is Implied to the maximum of order amount.
- 3) Price quotes provided by SCHSWF are valid for 90 days

***Thank you and have a good day!***

# ***Supplemental Order Information Addendum***

(Optional)

Software Description

---

Part# or Version #

---

Quantity:

---

Software Description

---

Part# or Version #

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Quantity:

---

Software Description

---

Part# or Version #

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Quantity:

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Software Description

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Part# or Version #

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Quantity:

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Software Description

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Part# or Version #

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Quantity:

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